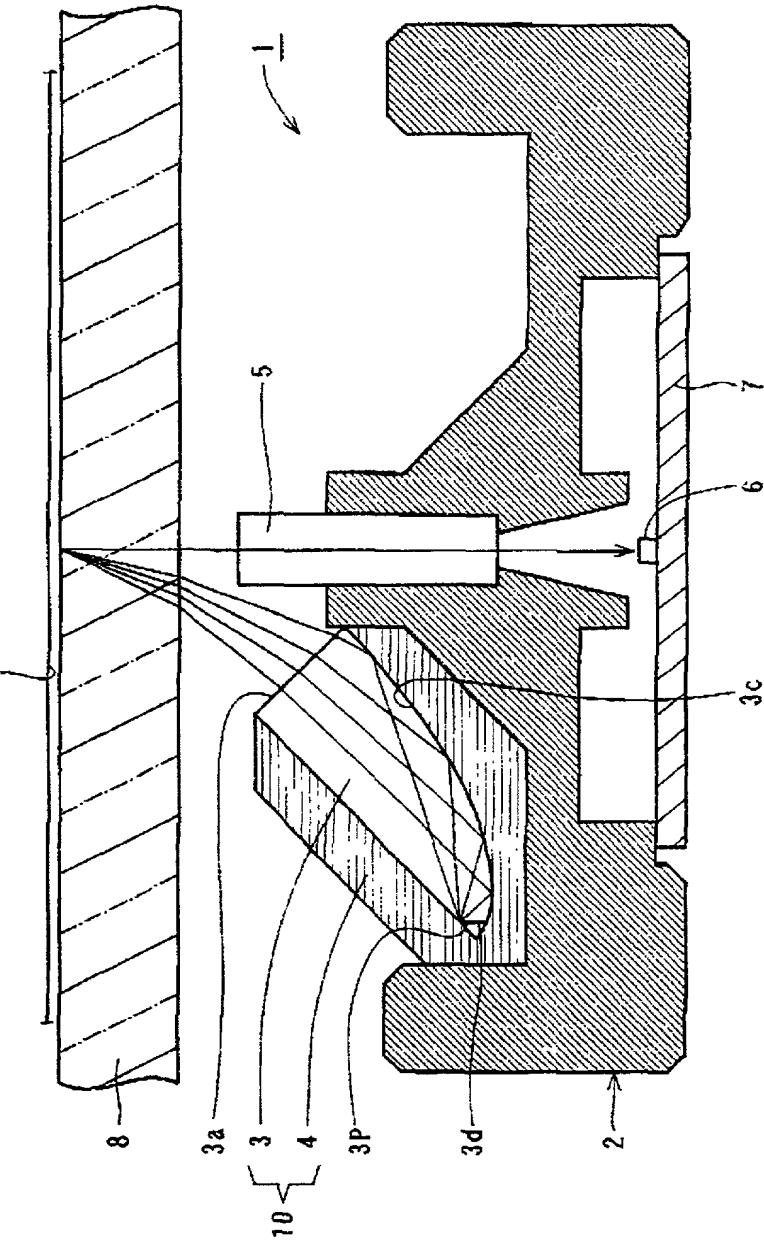


FIG. 1  
Document (Reading surface)



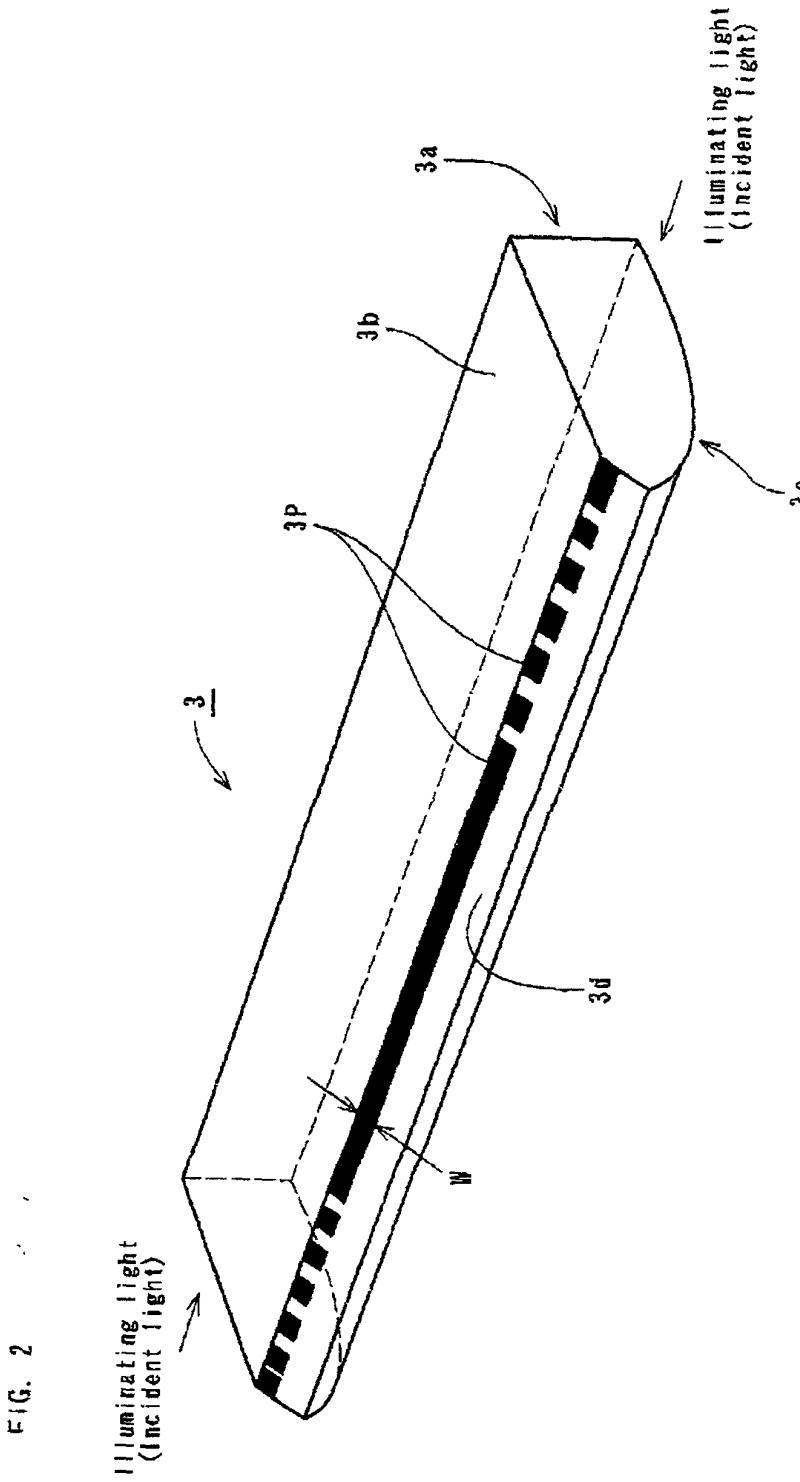


FIG. 3 Light intensity characteristics of line-illuminating device incorporated with light guide according to the present invention  
Scattering pattern width: 0.3 mm  
Light guide installation angle: 45 degrees

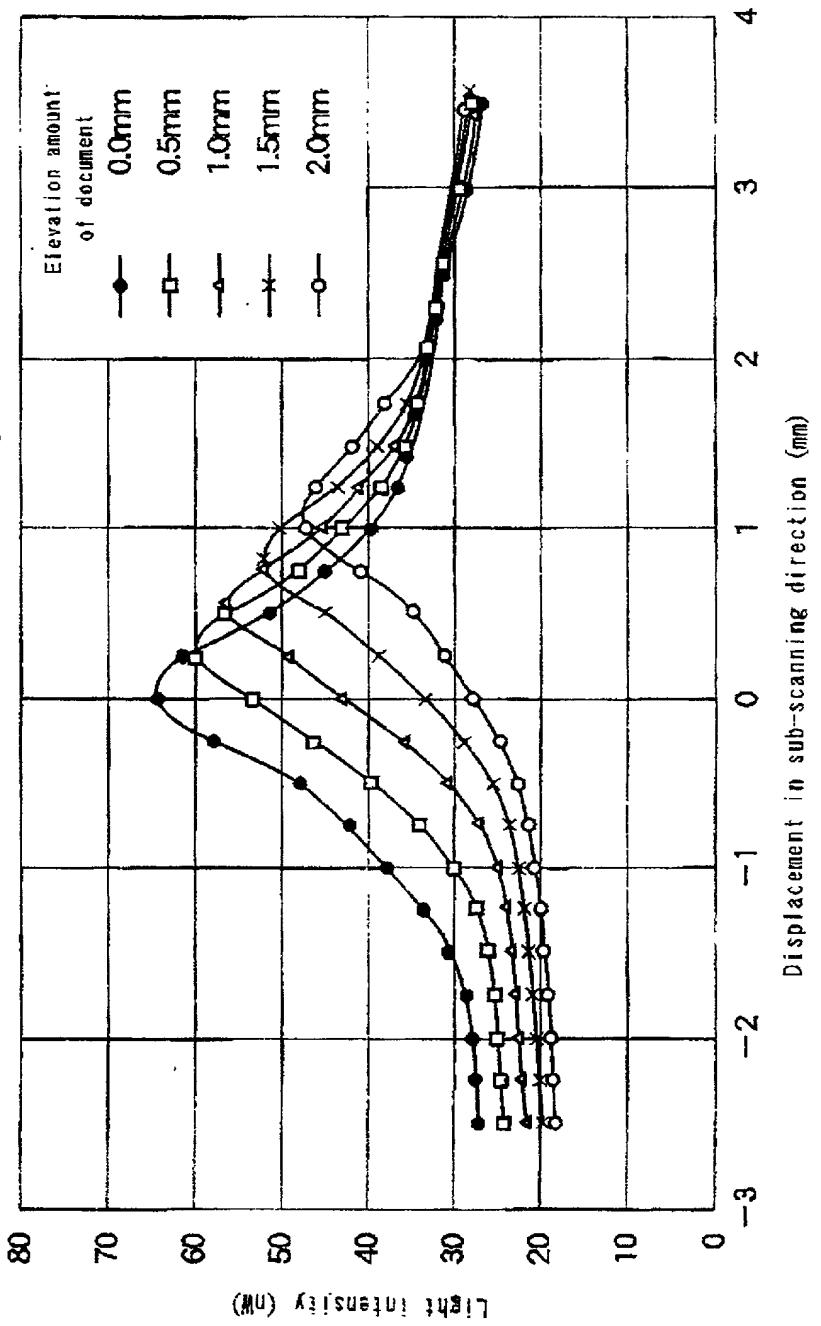


FIG. 4 Light intensity characteristics of line-illuminating device incorporated with light guide according to the present invention  
Scattering pattern width: 0.6 mm  
Light guide installation angle: 45 degrees

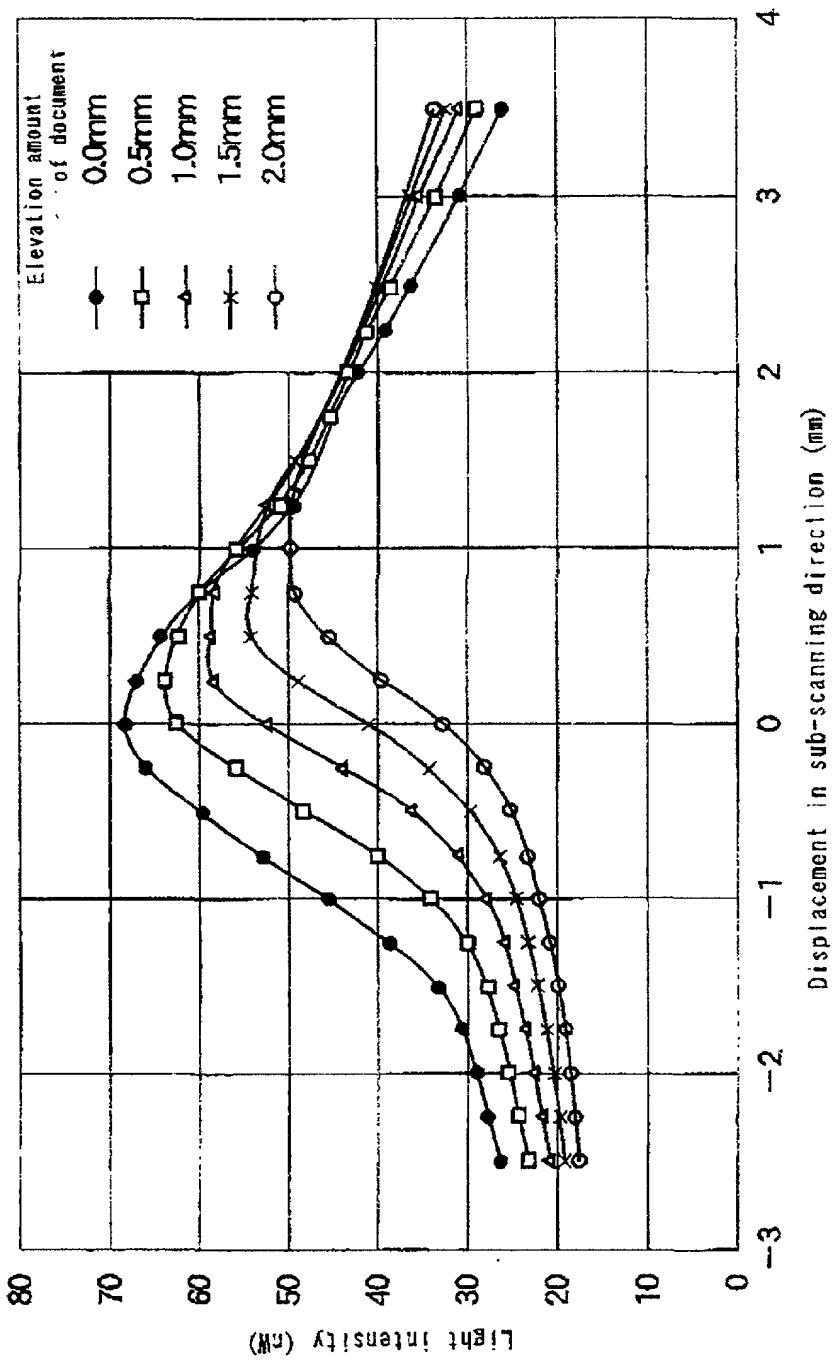


FIG. 5

Characteristics of 0.5 C channelling & C plane printing  
(Without correction for decrease of lens light quantity)

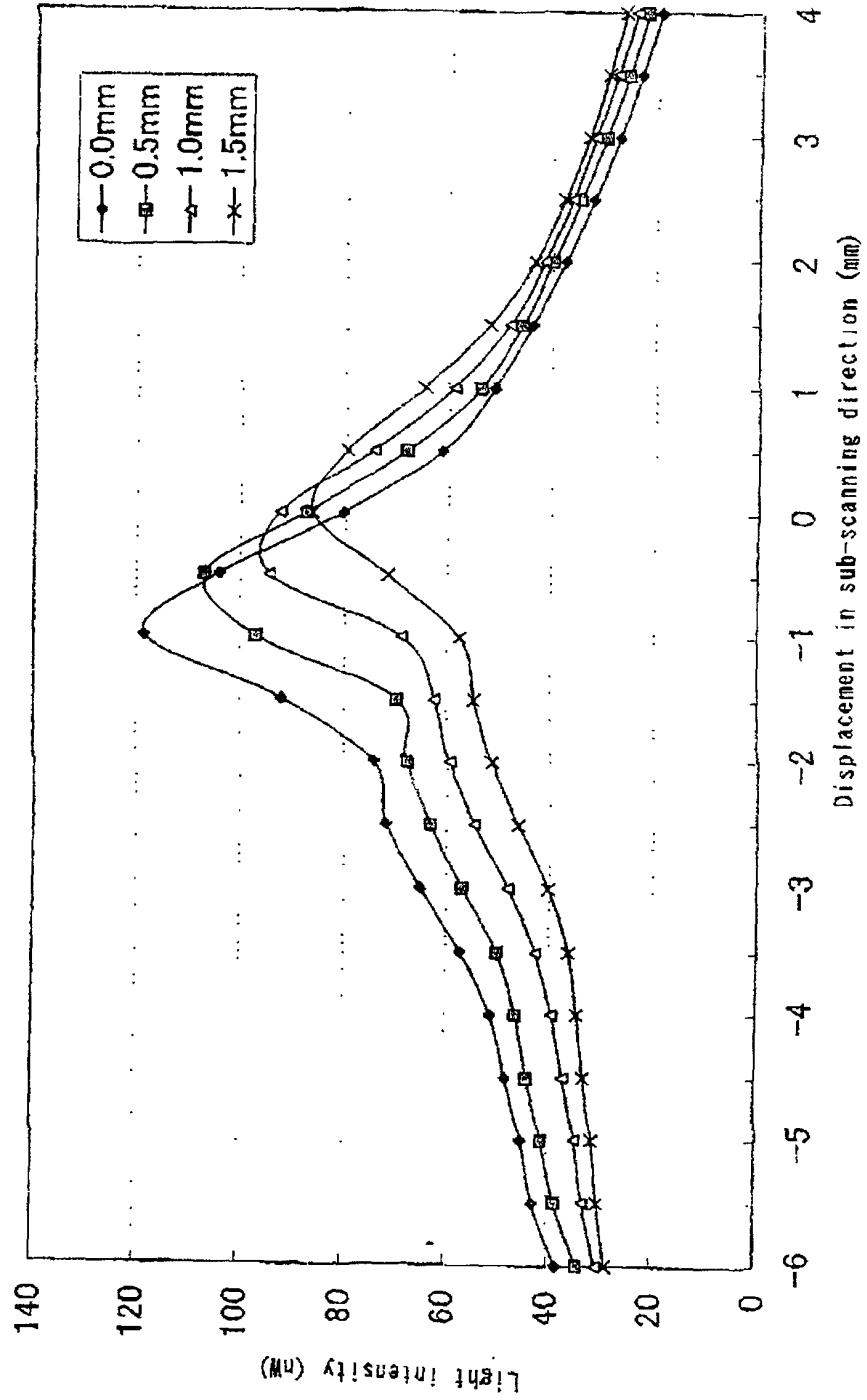


FIG. 6

Characteristics of 0.5 C channelling & C plane printing  
(With correction for decrease of lens light quantity)

140

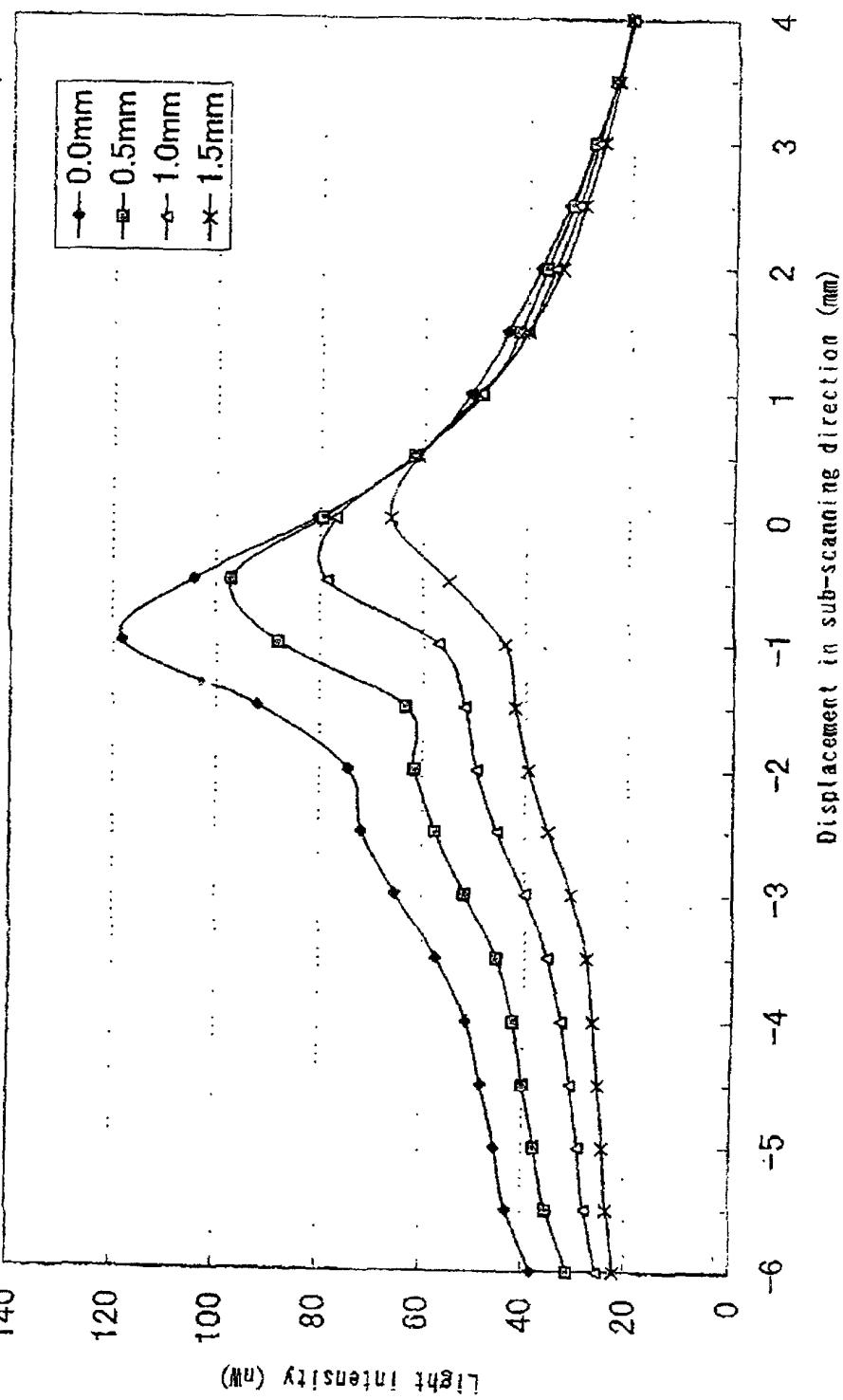


FIG. 7

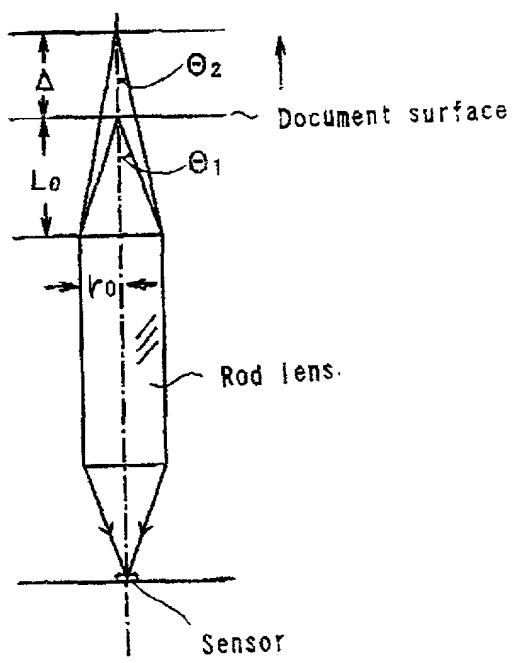


FIG. 8 Light intensity characteristics of line-illuminating device incorporated with light guide according to the present invention  
Scattering pattern width: 0.3 mm  
Light guide installation angle: 55 degrees

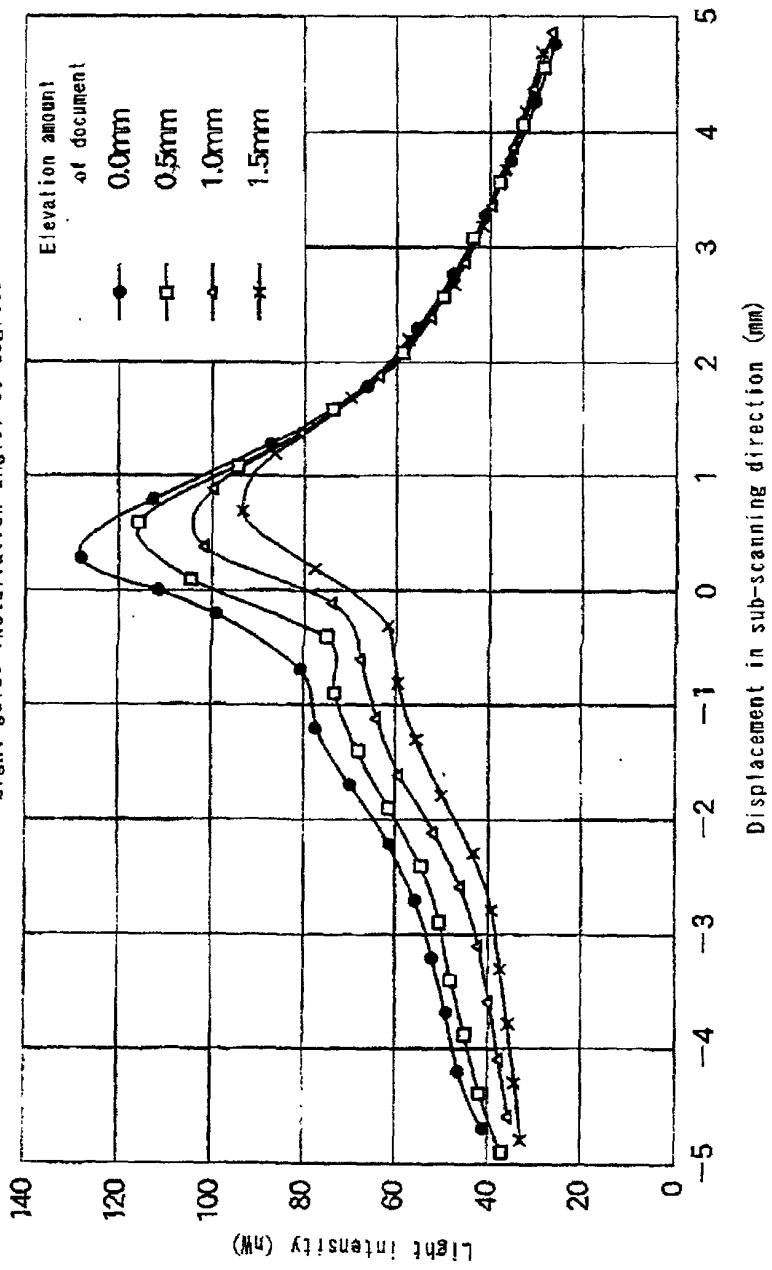


FIG. 9  
Document (Reading surface)

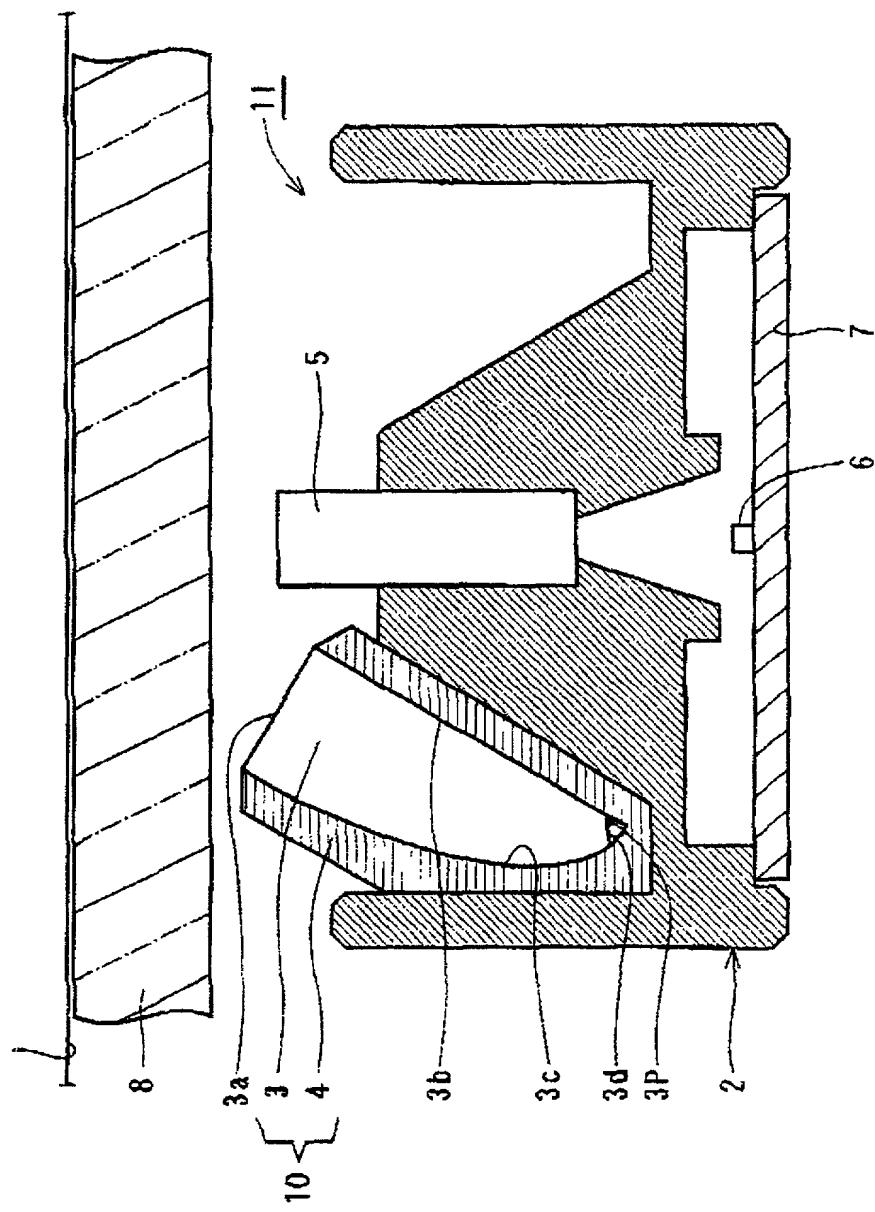


FIG. 10

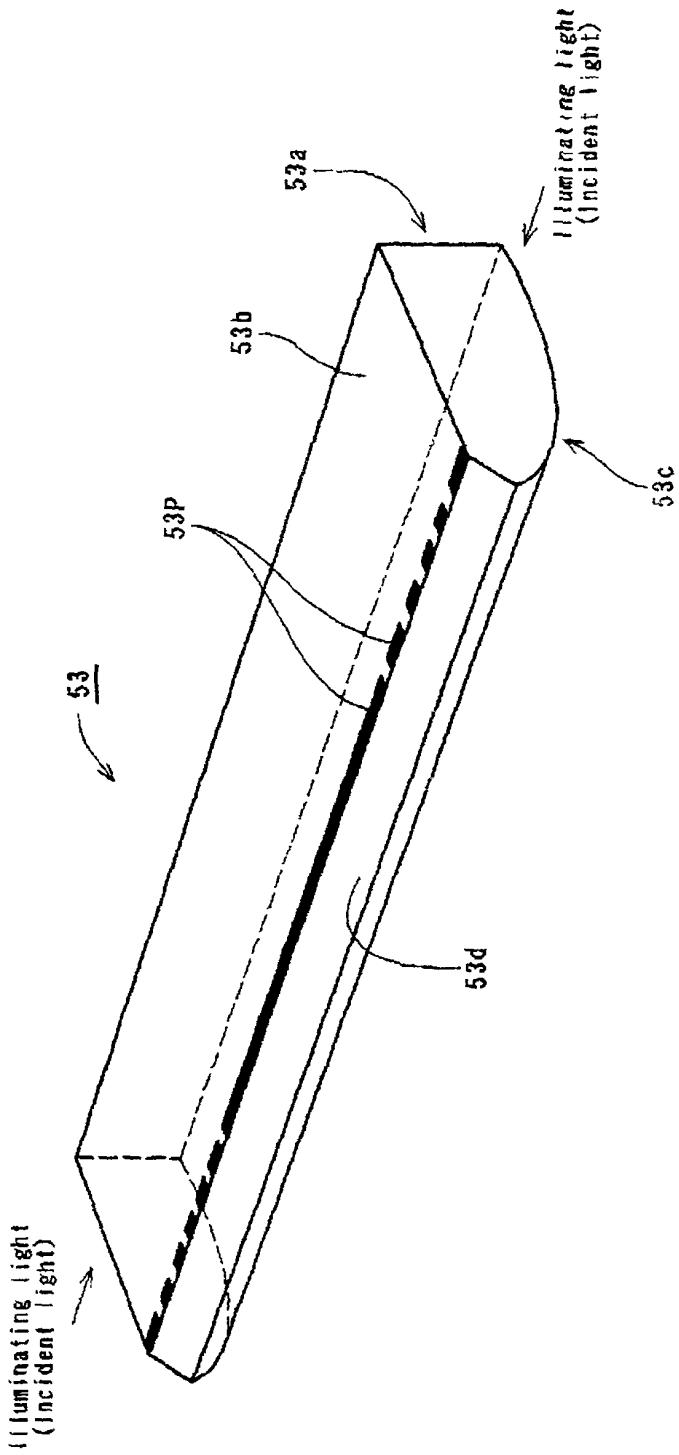
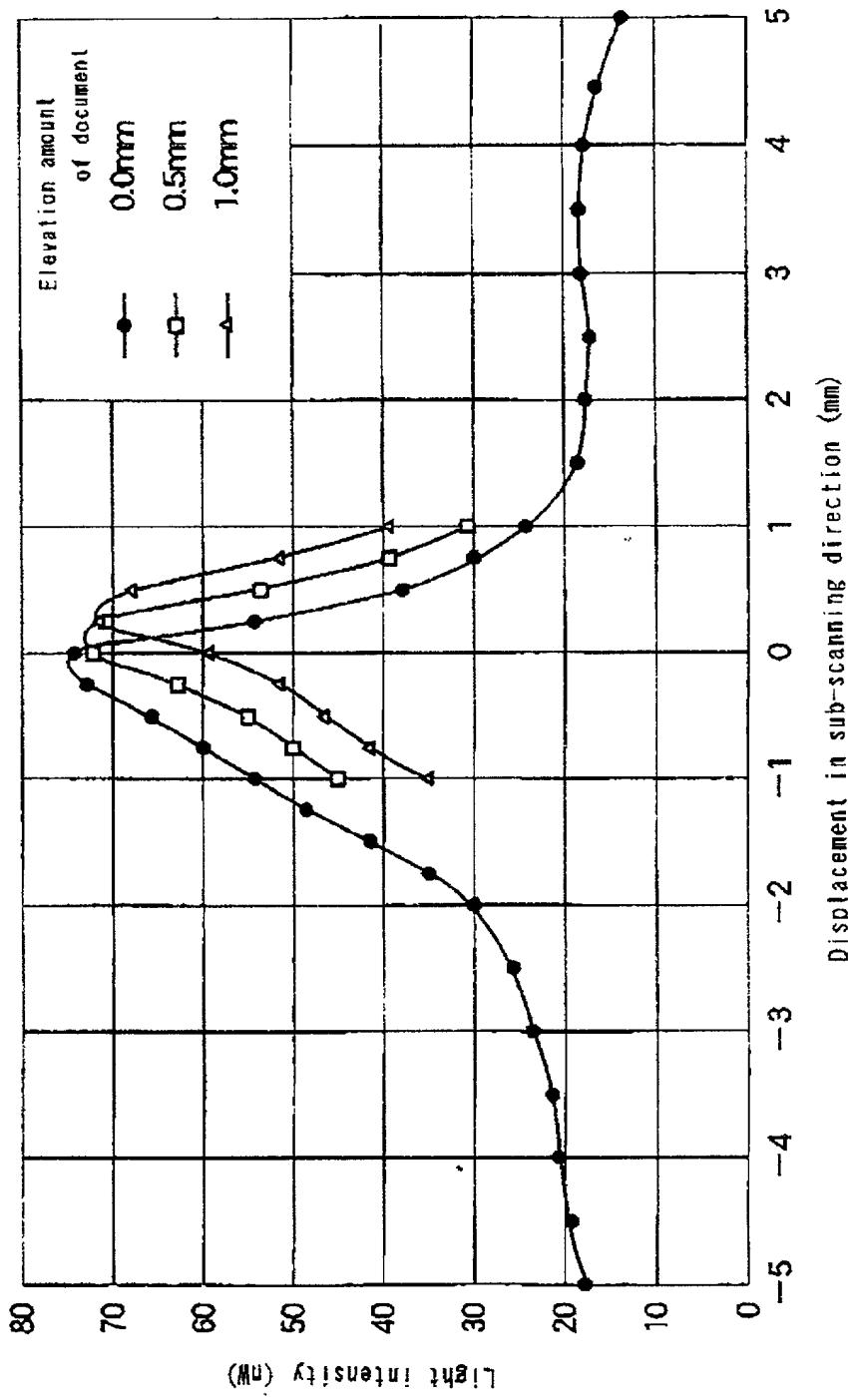


Fig. 11  
Light intensity characteristics of line-illuminating device  
incorporated with conventional light guide  
of which the edge section is chamfered



Inventor: IKEDA  
Docket No.: 12052 44US01  
Title: BAR-SHAPED LIGHT GUIDE, LINE-ILLUMINATING DEVICE INCORPORATED  
WITH THE BAR-SHAPED LIGHT GUIDE AND CONTRACT-TYPE IMAGE SENSOR  
INCORPORATED WITH THE LINE-ILLUMINATING DEVICE  
Attorney Name: Curtis B. Hamre  
Phone No : 612.336 4718  
Sheet 12 of 24

FIG. 12

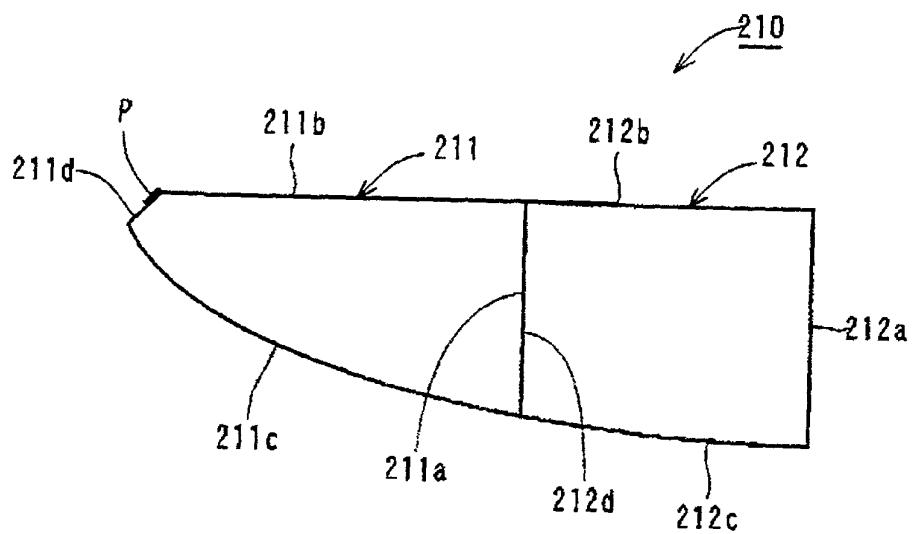
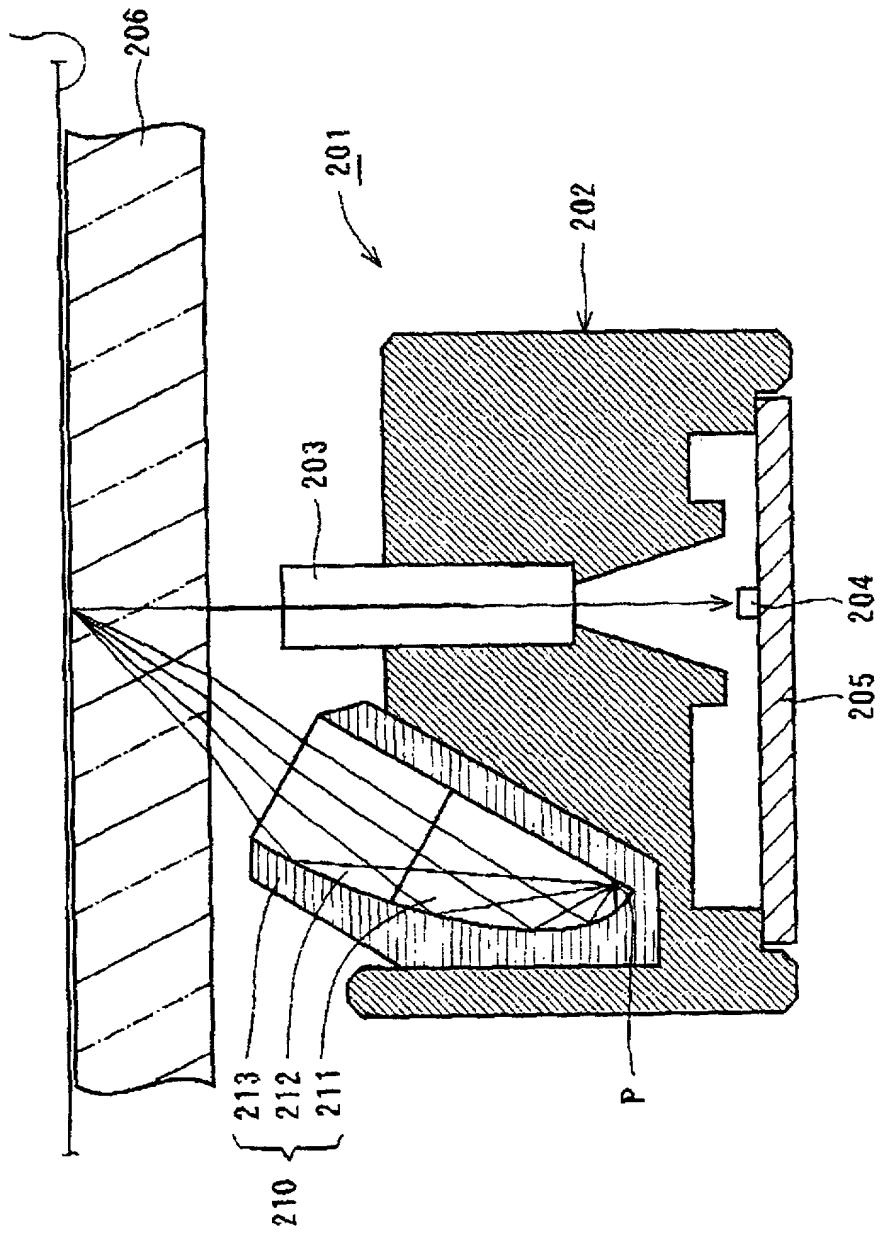


FIG. 13 Document (Reading surface)



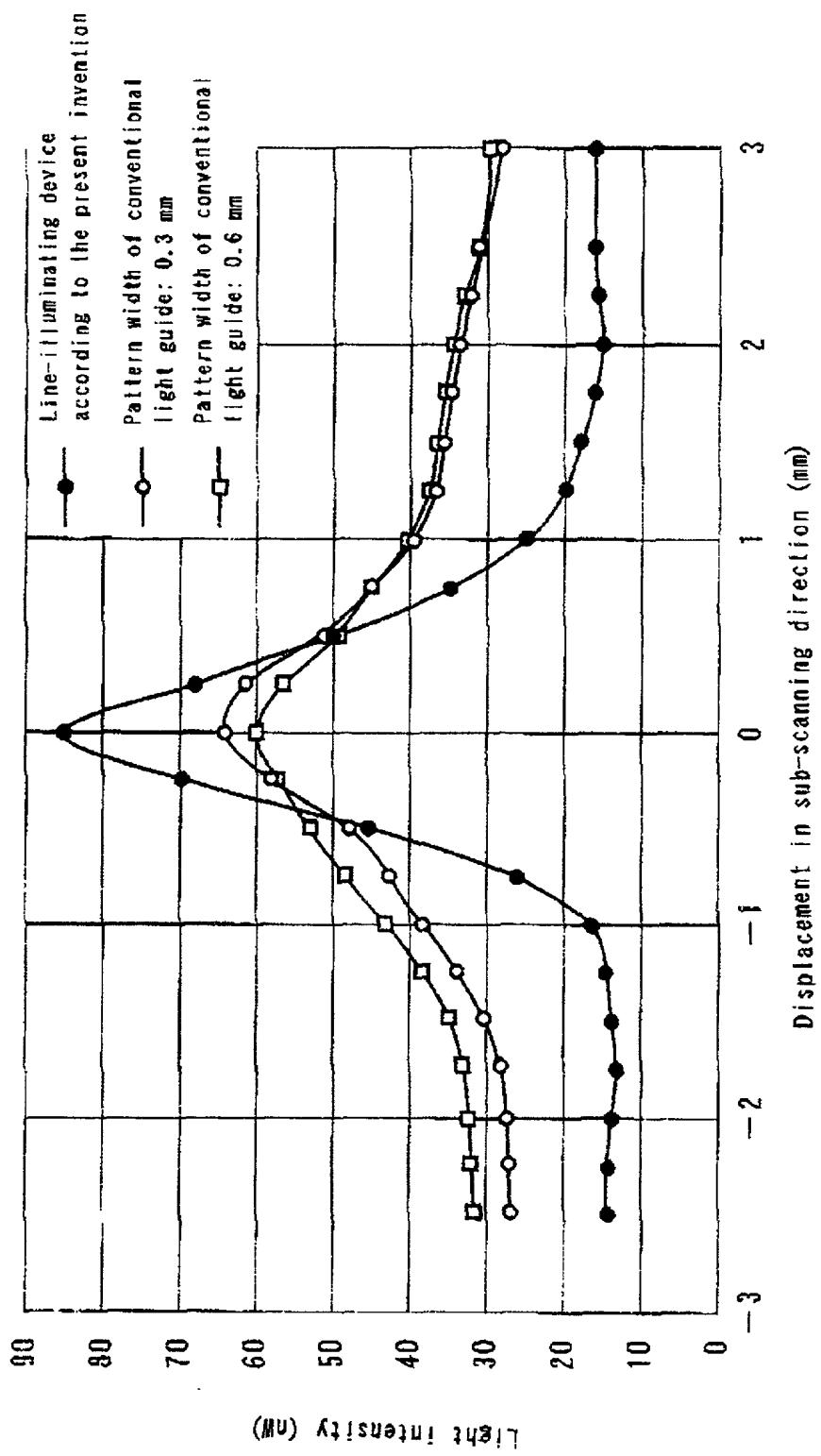
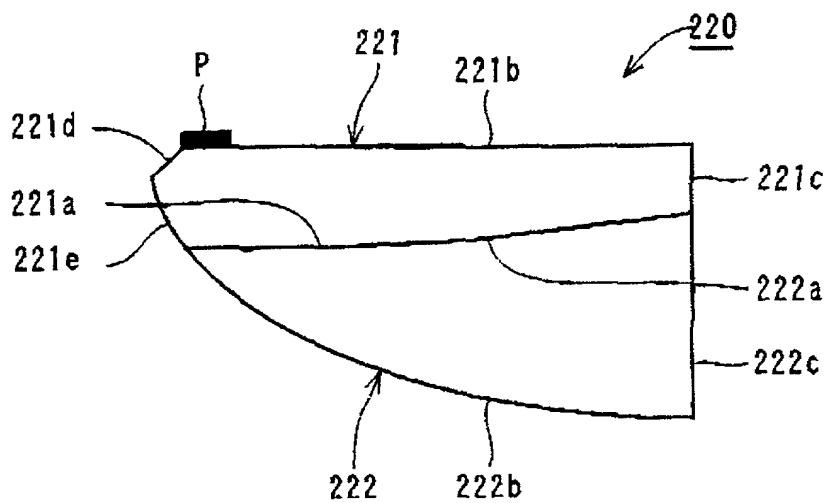
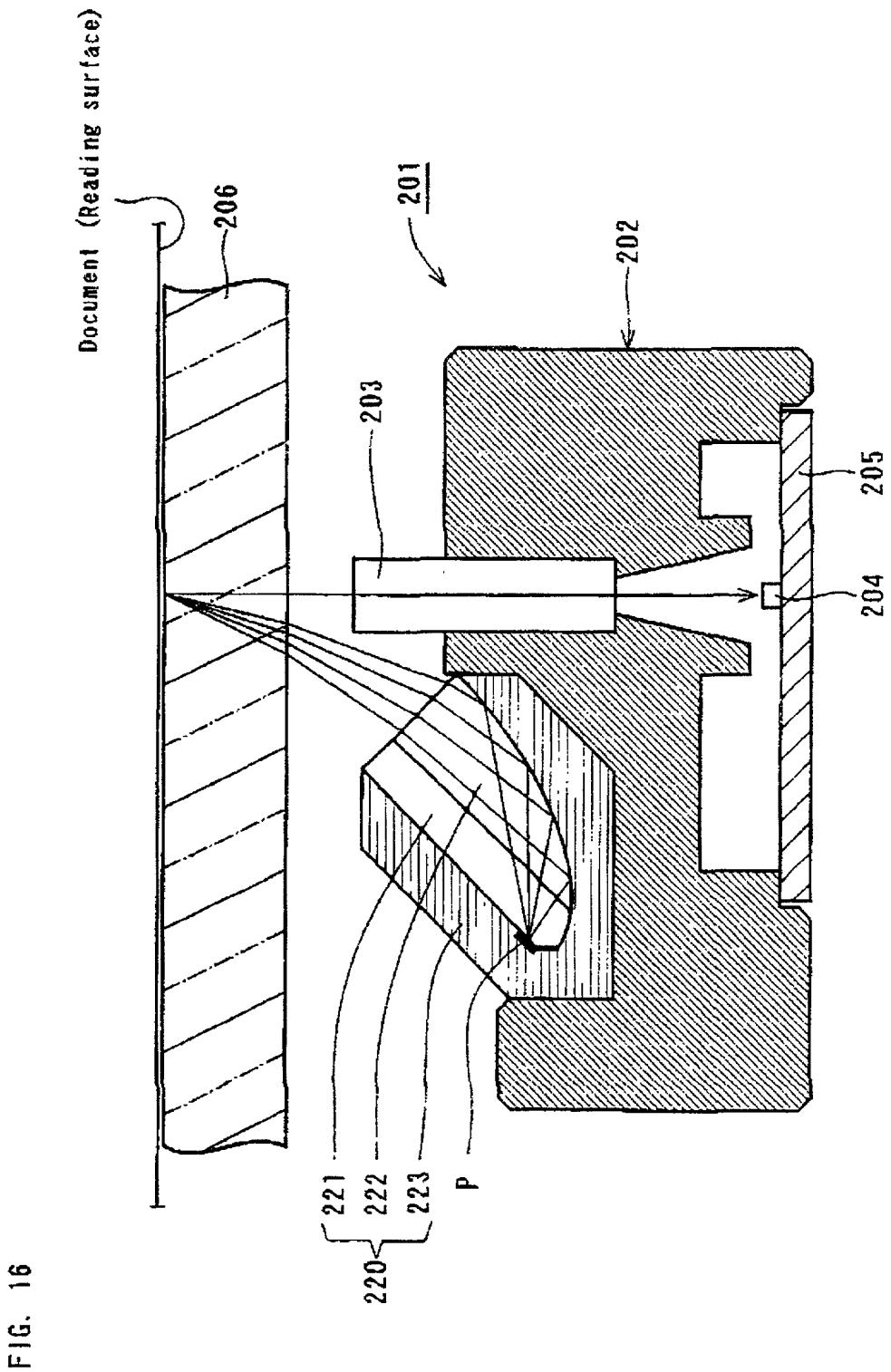


FIG. 14

Inventor: IKEDA  
Docket No.: 12052.44US01  
Title: BAR-SHAPED LIGHT GUIDE, LINE-ILLUMINATING DEVICE INCORPORATED  
WITH THE BAR-SHAPED LIGHT GUIDE AND CONTRACT-TYPE IMAGE SENSOR  
INCORPORATED WITH THE LINE-ILLUMINATING DEVICE  
Attorney Name: Curtis B. Hamre  
Phone No : 612.336.4718  
Sheet 15 of 24

FIG. 15





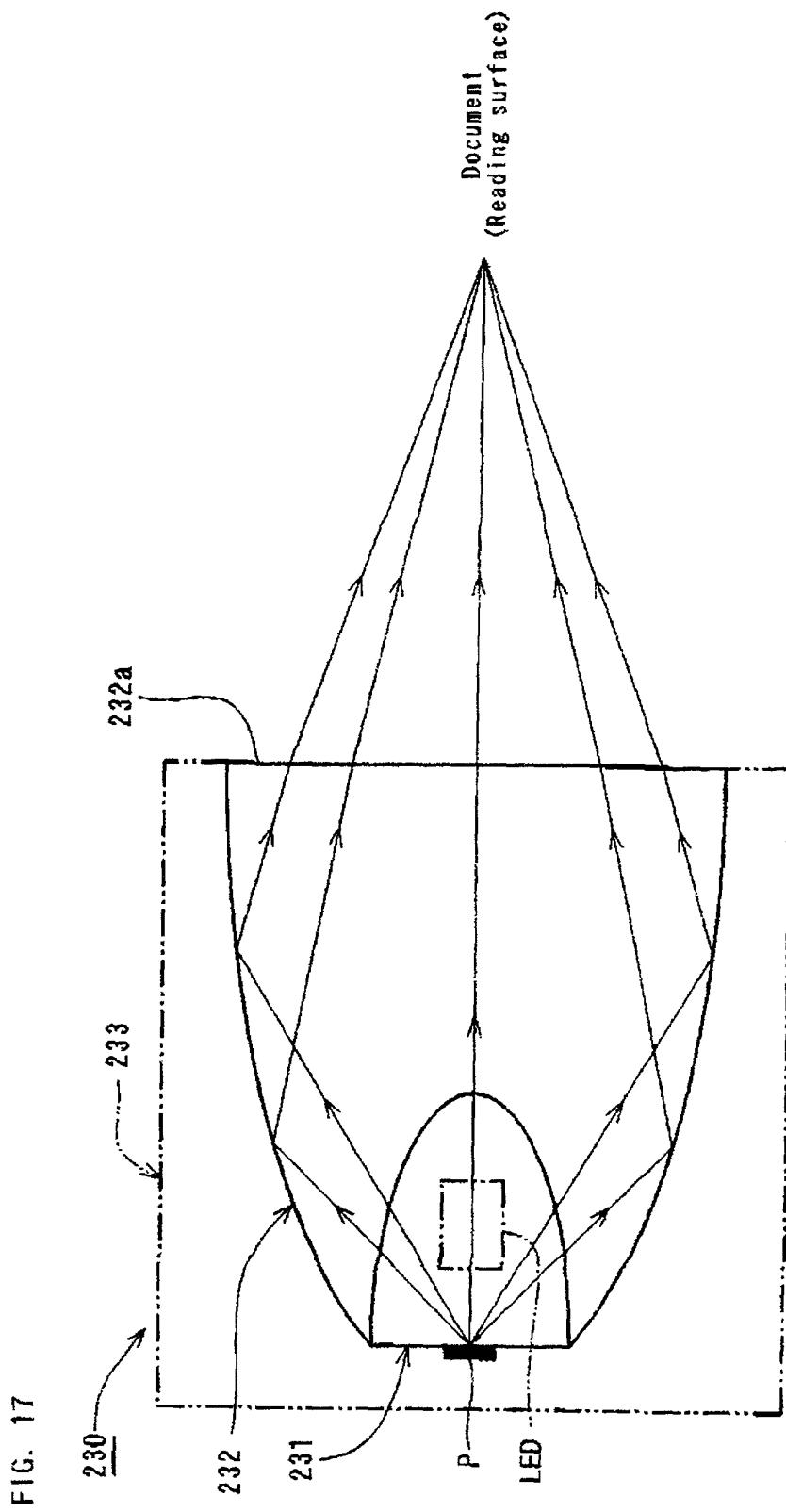
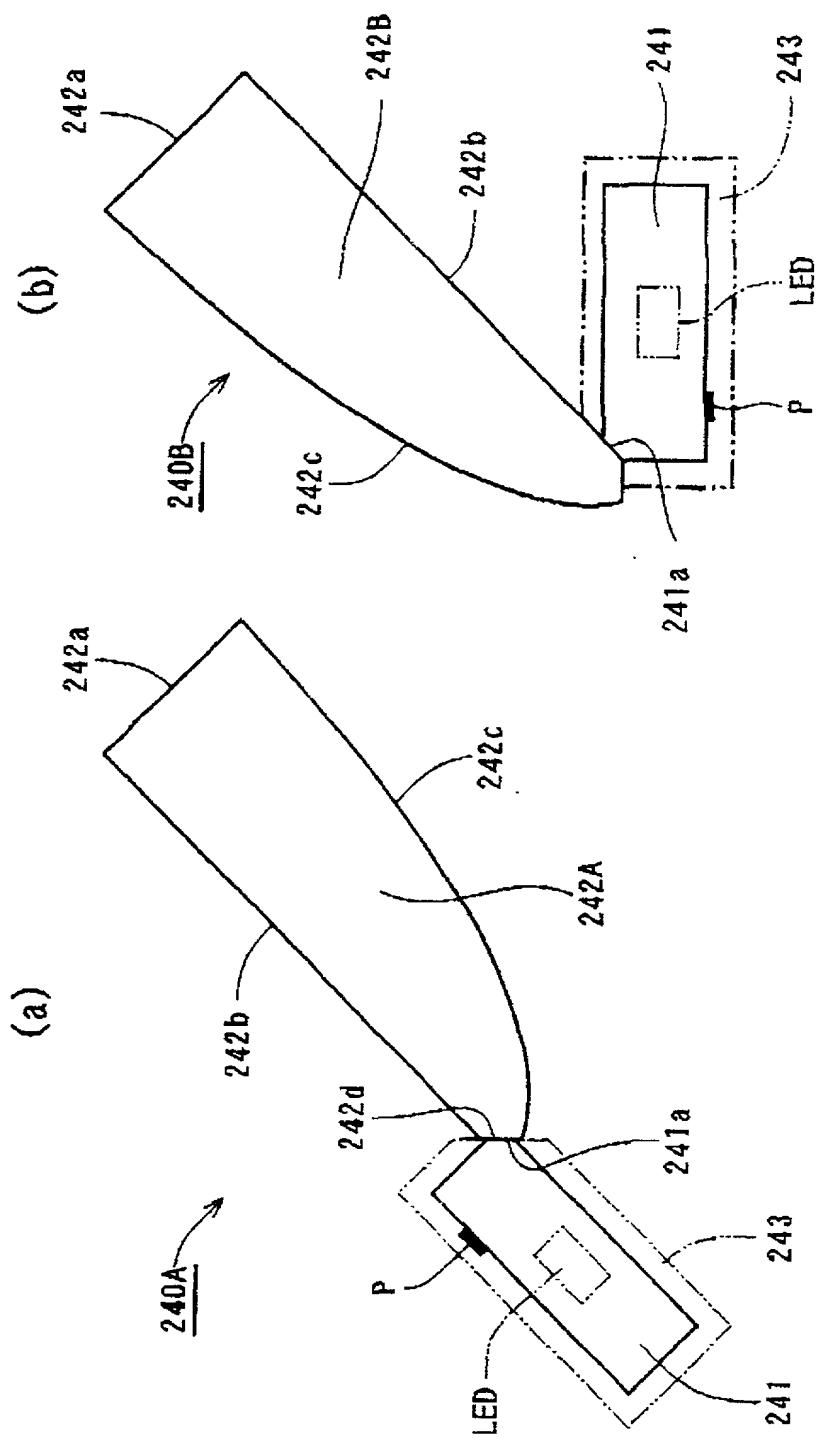


FIG. 18



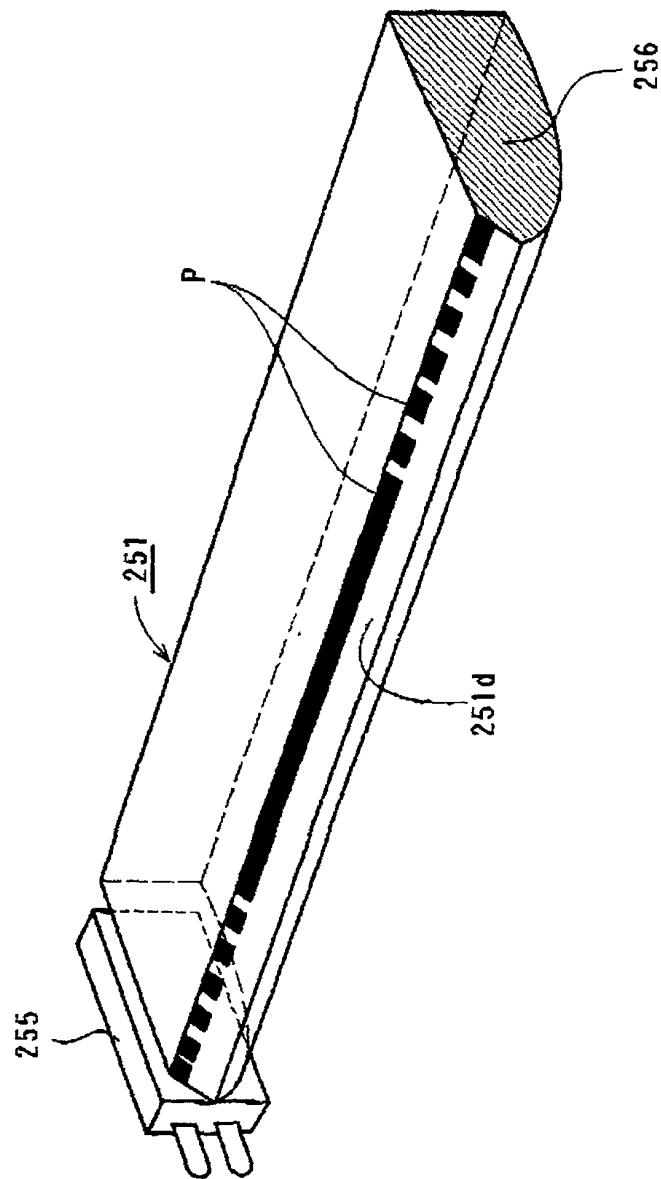
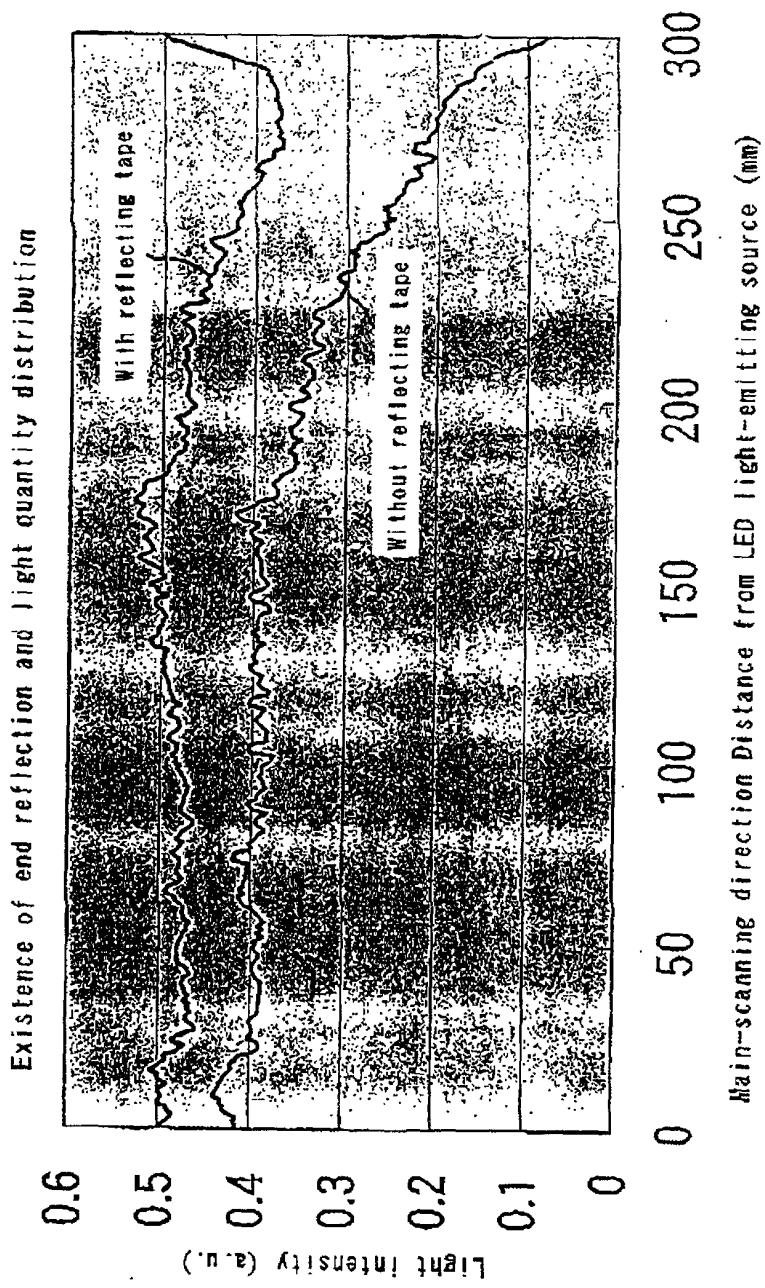


FIG. 19

FIG. 20



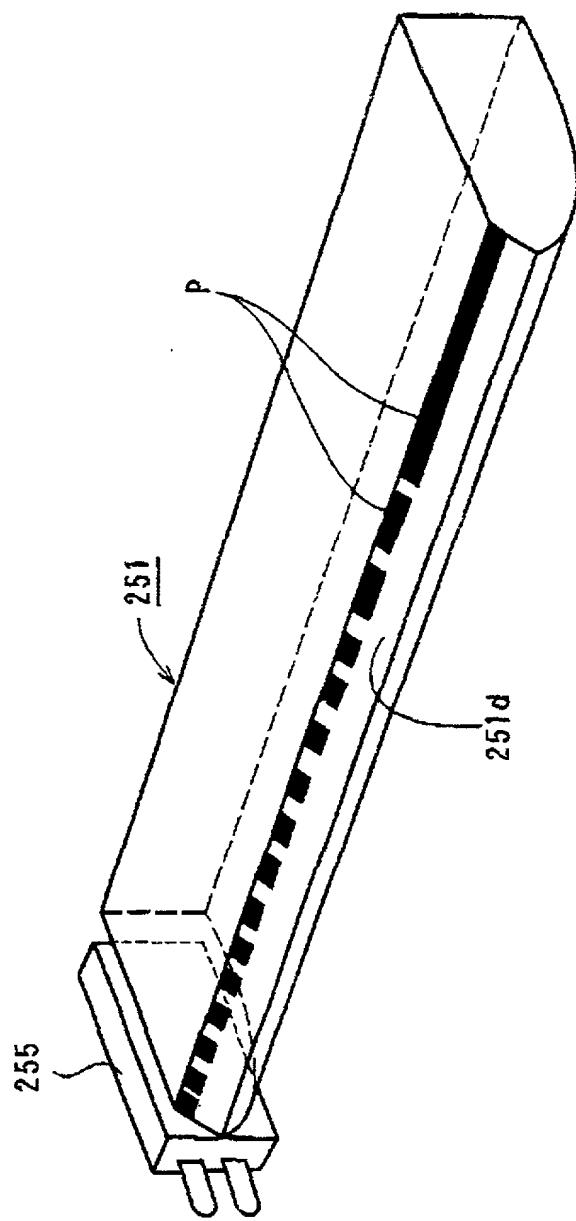
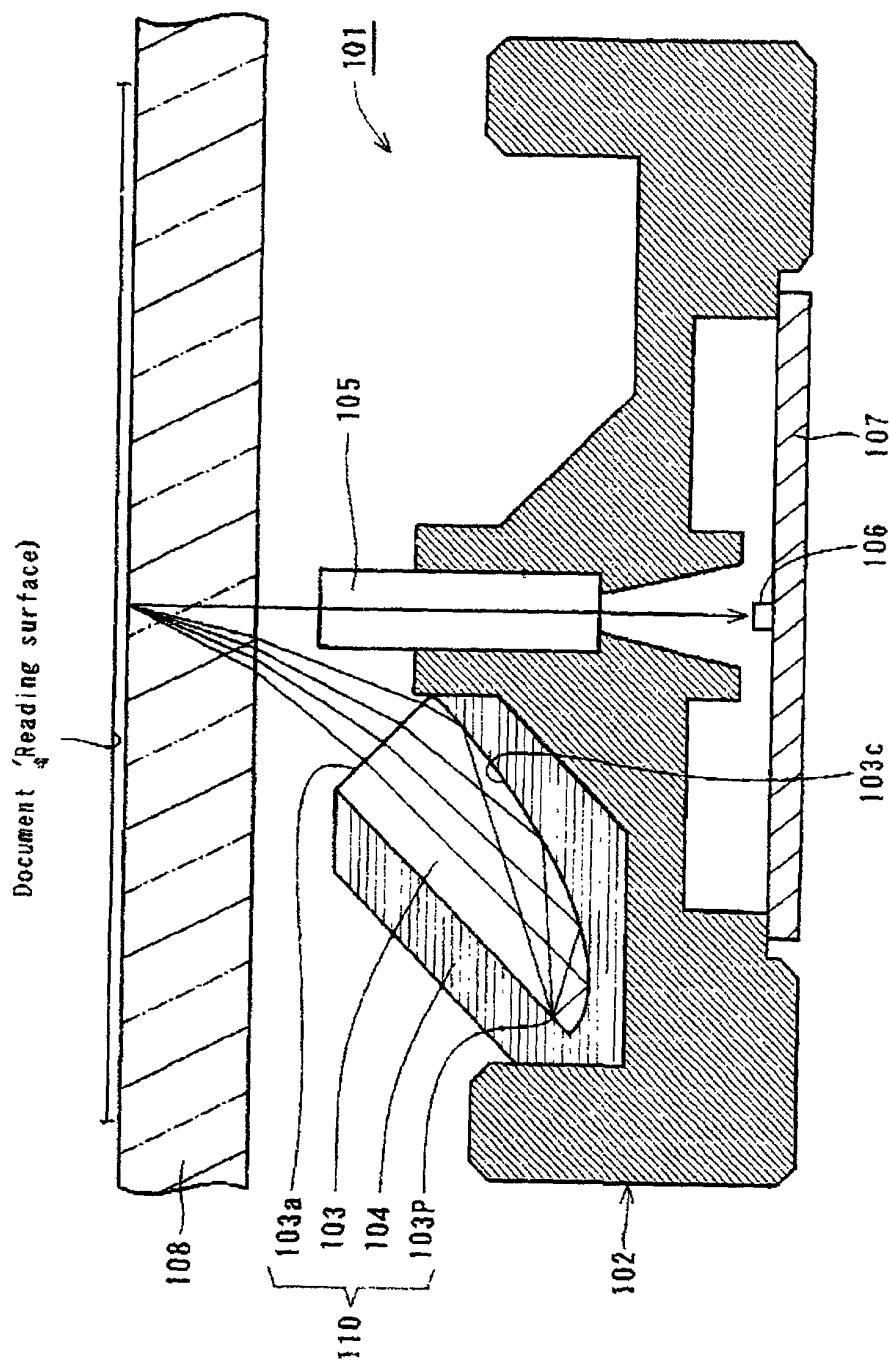


FIG. 21

F|G. 22



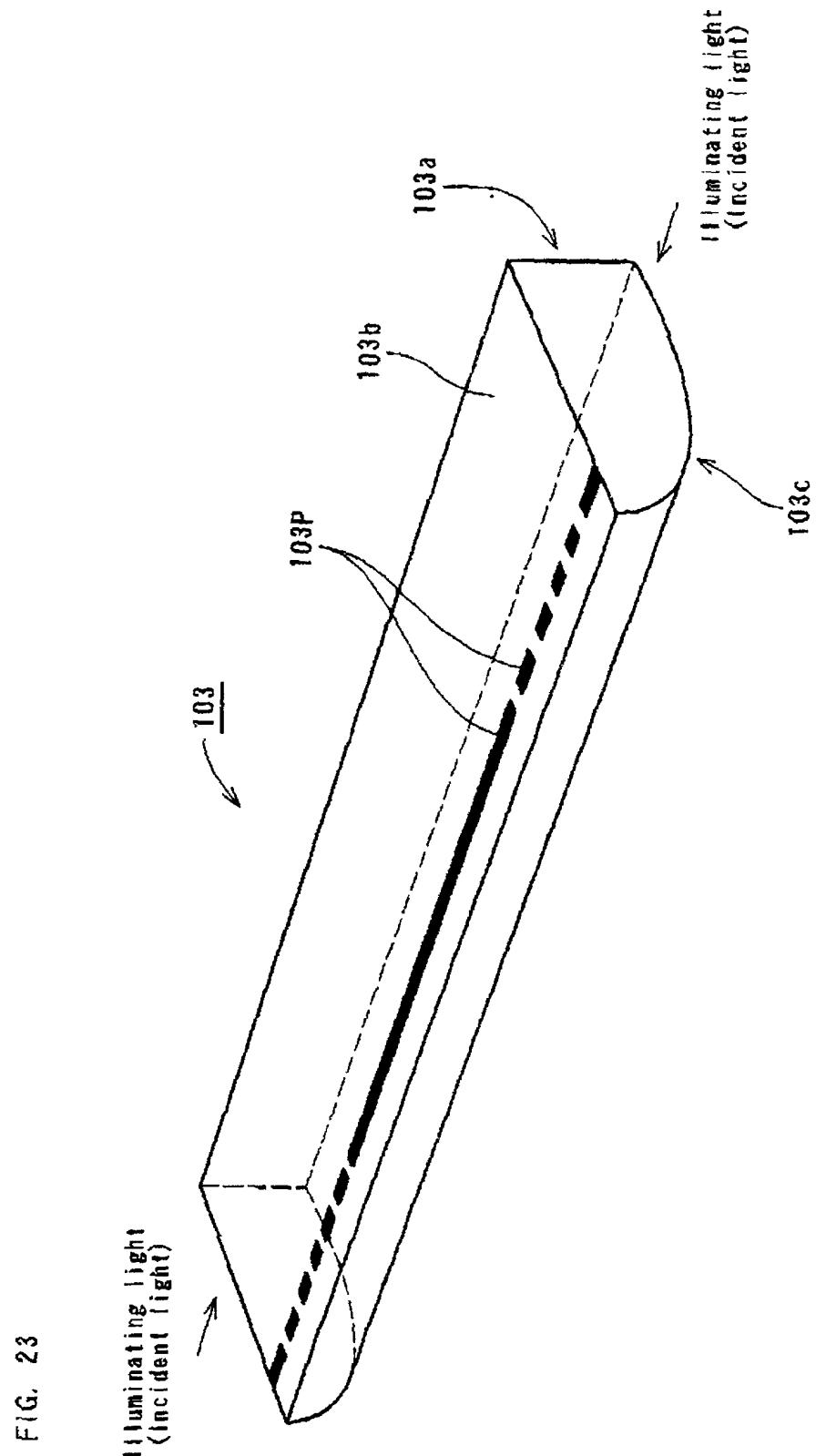


FIG. 24

Light intensity characteristics of line-illuminating device  
incorporated with conventional light guide

